

### Abstract Of The Disclosure

A system and method for purifying air by employing an air purifier which includes an irradiation chamber having a titanium element therein, an air circulator, and at least one  
5 ultraviolet radiation source. Impure air is exposed to UV in the presence of naturally occurring and reforming titanium oxide, a recognized photocatalytic agent. The agent is resident on the surface of a titanium element that is provided adjacent the at least one radiation source. The system may produce a plurality of separate UV energy spectra in distinct regions of the system. In this case, each radiating region of the system can be  
10 optically isolated from some or all of the other radiating regions by an optical isolator, and the isolator can incorporate a catalytic titanium element.

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